

50X1-HUM

MAR 1952 31-46

CLASSIFICATION CONFIDENTIAL
CENTRAL INTELLIGENCE AGENCY
INFORMATION FROM
FOREIGN DOCUMENTS OR RADIO BROADCASTS

REPORT

CD NO.

COUNTRY USSR

DATE OF INFORMATION 1947-1949

SUBJECT Scientific; Military - A-bomb, guided missiles,
 submarine warfare

HOW
PUBLISHED Daily newspaper

DATE DIST. 23 Feb 1954

WHERE
PUBLISHED Linz, Austria

NO. OF PAGES 3

DATE
PUBLISHED 19 Sep-10 Oct 1953

LANGUAGE German

SUPPLEMENT TO
REPORT

THIS DOCUMENT CONTAINS INFORMATION AFFECTING THE NATIONAL DEFENSE OF THE UNITED STATES, WITHIN THE MEANING OF TITLE 18, SECTIONS 793 AND 794, OF THE U.S. CODE, AS AMENDED. ITS TRANSMISSION OR REVELATION OF ITS CONTENTS TO OR RECEIPT BY AN UNAUTHORIZED PERSON IS PROHIBITED BY LAW. THE REPRODUCTION OF THIS FORM IS PROHIBITED.

THIS IS UNEVALUATED INFORMATION

50X1-HUM

SOURCE Oberoesterreichische Nachrichten

GERMAN ATOM SCIENTIST IN THE SOVIET UNION

Comment: The material in this report was taken from a series of articles published in the Sunday supplements of the Linz Oberoesterreichische Nachrichten of 19 and 26 September and 3 and 10 October 1953. The series deals with the experiences of Dr Manfred Deitenborn in the Soviet Union. The paper states in its introduction: "A few months ago, the world press reported that, after the escape of the German physicists Dr Hans Lakert and Professor Tellmann, the German scientist Dr Manfred Deitenborn has now also succeeded in fleeing from the Soviet Union...."

However, a close examination revealed that the identical series had already been published by the Salzburger Kleine Illustrierte in December 1949 and January 1950. It is not known why the Oberoesterreichische Nachrichten, usually a reliable newspaper, has now reprinted the series and intimated in its introduction that it is of recent origin.

50X1-HUM

After Dr Deitenborn's return to Moscow in January 1947 [Following the abortive trip to Semipalatinsk [redacted] he was invited to Kronshtadt by the Soviet Navy. There he met another German, an engineer named Kurpanek, from Westphalia. Kurpanek was indispensable to the Soviets as an "all-around genius." He was a specialist in submarine armament, the designer of guided missiles, and one of the developers of the hydrogen peroxide propellant with which the Soviets hoped to give their submarines a speed of 25 knots under water. At the time of Deitenborn's visit, Kurpanek was working on the problem of launching guided missiles with atomic warheads from submerged submarines, and the project had progressed to the point where tests were being run with guided missiles launched from surfaced submarines.]

50X1-HUM

50X1-HUM

- 1 -

CLASSIFICATION

CONFIDENTIAL

[illegible]

50X1-HUM

CONFIDENTIAL

Deitenborn describes the experiment as follows: "Toward noon of the next day we went out into the Baltic on Captain Yakolnov's motorboat. ... A few miles out, there was a captured German snorkel-type sub. On coming closer, we noticed a catapult-like structure about halfway between the bow and the conning tower. It consisted of a kind of iron table, about 2 meters above the deck, held by heavy struts, with a large conspicuous tube on it, which looked somewhat like a telescope. Attached to this tube was a missile resembling a torpedo, with its tail subdivided by four rings. The nose of the torpedo was blunt and had a brightly colored insert.... Captain Yakolnov told me: 'You will see a rocket launching from a submarine. The target is out on the sea, a old gunboat, about 180 kilometers away. The target is small for that distance, but I have been told that it is fairly certain to be hit....'

"I was told that the rocket was propelled by an alcohol -- liquid-oxygen mixture, the type of propellant used in the German V-2.... 'It will be no secret to you [Captain Yakolnov continued] that the Germans used much more powerful mixtures, such as hydrogen peroxide and potassium permanganate. But they will all be far surpassed, once we have succeeded in using a mixture of liquid hydrogen and liquid oxygen. We are now testing that mixture. It would also be interesting for us to know whether fissionable materials could be used as a charge.'... The curious part of it was that, as I learned only later, there was no usable Soviet A-bomb as yet, and the whole Soviet atomic research was still a big question mark."

Deitenborn reports that the missile was launched with two detonations which followed each other in quick succession, and which covered the conning tower and the stern of the submarine in a cloud of smoke. The initial velocity of the missile was not very great. The missile was visible, trailing a bright flame and a streak of white smoke which later turned dark in color. It was reported an hour after the launching that the missile had passed through its controlled course exactly, that it had come down 180 kilometers away and had exploded there. No information on whether or not the gunboat had been hit was given out.

50X1-HUM

After this trip, Deitenborn returned to Moscow, where he waited 2 weeks for a new assignment. At the end of March 1947 he left for an unknown destination. [The new post was at the atom research institute at Sterlitamak -- in this version consistently misspelled as "Sterlitama."]

[Deitenborn, in April 1948, with the cooperation of two Germans identified only as Professor D, Doctor W, and a Russian named Zhesan, overcame the difficulties. [Aside from the mention of Zhesan, this phase, up to the test explosion at the Caspian Sea, was summarized in the above report.] After the test, Professor Sokolnov stated that the institute [at Sterlitamak] had been successful in its work, and that it was not responsible for the fact that the results of the test were only 30 percent of the expected results.

50X1-HUM

Deitenborn was then transferred to be the scientific chief of a new research institute on Lake Baykal, near Irkutsk. He described his impressions as follows: "... The terrific tempo had its disadvantages. The question of safe operation was not given much thought, but continuous inquiries were received as to why the industrial-scale production of atom bombs had not yet started. As far as precision, ingenuity, practical design, and production of precision-measuring instruments and devices are concerned, the Russians still have a lot to learn. In this phase of production, the work is done almost exclusively by German experts. The atom research institutes are scattered throughout the country, and none of them knows what the others are doing. Each one operates more or less on its own, and there is unhealthy competition between them for the most favored position....

- 2 -

CONFIDENTIAL

50X1-HUM

CONFIDENTIAL

"I had a staff of 62 scientists, including 14 Germans. The Russians and the Germans got along well with each other. The production chief was a chief engineer from Moscow, 52 years old, whose name I cannot give because of subsequent happenings.... The institute was still in the construction stage, but Moscow informed us that, starting in January 1949, a national production capacity of one A-bomb per week was expected. This was a high target, even if the apparatus was to operate without any friction, which was hardly to be expected. Tireless work was being continued on the development of the trigger. It was the most critical and the most controversial point, because I gathered that Soviet espionage in the United States had failed completely in this matter. All plans which the Soviets had obtained turned out to be fakes and totally useless. The engineers Kotov and Vasil'yev had designed their own triggers, but they were unreliable and too complex...."

Deitenborn then describes the difficulties caused by the impatience and the constant interference of higher authorities, who wanted tangible results and would not listen to technical reasons for delays. The position of the scientists became critical, and the production chief told Deitenborn that he was worried about his job.... "He kept going to Tannu Tuva, the location of the plants supplying the atomic explosives. Occasionally he told me about his trips. I gathered that many things were wrong, but he did not tell me the whole truth until the situation had become alarming for us.... Then he told me that the explosive power of the atomic material supplied was less than 25 percent of what it had been computed to be. This meant that the practical usability had been reduced to such a minimum that the means and efforts invested were hardly worth the bother.... Moscow urged new tests. A series of atom-bomb tests with various types of triggers was set for March 1949. The best of these triggers was then to be developed further by the Technical Command of the Artillery. We succeeded in having the tests delayed for 2 months... but we knew that they would end in disaster.... One day the production chief told me.... 'You ought to quit; it's useless. We cannot overcome the difficulties. There are too many conflicting interests working against each other. Each one thinks that only his job is important, and that's why the final products are only half-finished jobs. I've just come back from Tannu Tuva, and I can tell you, it's a catastrophe. We can do only one thing: Quit before it is too late.'"

Deitenborn and the unidentified Russian then laid plans for escape. General Yefremov came on an inspection trip, and complained about the difficulties in the transport of raw materials, the failure of suppliers to meet deadlines, and the inaccurate work, which were responsible for the constant delays in production. The production chief, ordered by Yefremov to straighten out these things, suggested to Yefremov that Deitenborn go along with him as consultant. The Russian production chief and Deitenborn used the trip to effect their escape. Deitenborn states that he cannot give the details of the escape, other than that they landed their aircraft in a neutral country. This, judging from the other dates, would have been sometime in 1949. Deitenborn does not state the time of his escape.

In conclusion, Deitenborn feels that the main Soviet weapon would be the snorkel-equipped submarine, with hydrogen peroxide propellant and a speed of 25 knots, and capable of launching guided missiles. In his 1949 estimate, the Soviets would have over 1,000 submarines by the next year, and were planning to have 2,500 snorkel-type submarines, most of them with hydrogen peroxide propellant, by 1955. Deitenborn concluded: "Without any doubt, the A-bomb is of great importance in Soviet war plans. But it is considered the task of the new submarine weapon to cut the lifelines of the enemy and to paralyze him."

50X1-HUM

- E N D -

- 3 -

CONFIDENTIAL

50X1-HUM